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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/818,573 | 03/28/2001 | Hiroaki Mashiko | Q63340 | 3670 |

7590 08/26/2002
SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037

EXAMINER

DONG, DALEI

| | |
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| ART UNIT | PAPER NUMBER |
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2875

DATE MAILED: 08/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/818,573

Applicant(s)

MASHIKO ET AL.

Examiner

Dalei Dong

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 March 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 9818573.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The examiner recommends the following title – Member for Electroluminescent Device containing Removing Agent

2. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

3. The abstract of the disclosure is objected to because the abstract contains the word “comprising” this should be replaced with the word “having”. Correction is required.

See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 8, recites dependent on claim 7, recites a broader range specified in claim 7 therefore it is a range within a range. It is unclear as to what the scope of the claim is, is there an upper limit for the modulus of elasticity in claim 8?

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S.

Patent No. 5,882,761 to Kawami.

Kawami discloses all of the claimed limitations set forth in claim 1. Kawami shows a “drying substance air tightly contained in the airtight container” (column. 2 line. 38-39), by means of a “bonding agent” (column. 5 line 41 and see Figure 1, depending portion 8). The “bonding agent” in term forms the “adhesive member” as claimed in claim 1, which is “fixed” or “bonded” to the drying substance.

Kawami also clearly states all of the claimed limitations in claim 2. The drying substance stated above by Kawami is “compound into an air-permeable bag” (column. 5 line. 16-17), which is equivalent to “a sheet member having a gas permeable portion coving the said removing agent.”

Kawami further discloses all of the claimed limitations in claim 10. Kawami specifies an electroluminescent device containing a drying substance that is bonded to both the electroluminescent device and the drying substance. For further detail please refer to Figure 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,882,761 to Kawami in view of U.S. Patent No. 5,990,615 to Sakaguchi. Regarding to claim 3, Kawami discloses a drying substance, an “adhesive member” and a sheet member having gas-permeable portion covering the drying substance. However, Kawami did not discloses the type of material used to compose the gas-permeable portion. Sakaguchi teaches providing a protective layer on the Electroluminescent

device, using polytetrafluoroethylene (column 2, line 56), to resist moisture and insulating electrical properties. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use polytetrafluoroethylene of Sakaguchi as the protective layer for the drying substance of Kawami, for the purpose of controlling the amount of impurities allowed to pass through and absorbed by the drying substance.

Regarding to claim 4, Kawami also discloses the drying substance, an “adhesive member” and a sheet member having gas-permeable portion covering the drying substance. But Kawami does not specify the type of material composed of the gas-permeable portion. Sakaguchi also teaches a “protective layer-using polymer of fluorine system such as polytetrafluoroethylene (PTFE), polychlorotrifluoroethylene (PCTFE), polyvinyliden fluoride (PVDF), etc. as a deposition source” (column 2, line 53-57). The different types of polymers used by Sakaguchi all exhibits the property of a crystal structure. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use polymer with crystal structure of Sakaguchi as the protective layer for the drying substance of Kawami, for the purpose of controlling the amount of impurities allowed to pass through and absorbed by the drying substance.

7. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,882,761 to Kawami in view of U.S. Patent No. 5,952,778 to Haskal. Regarding to claim 6, Kawami specifies all of the claimed limitations, for instance a drying substance, an “adhesive member” and a gas-permeable sheet member, however, the type of material comprises the gas-permeable sheet member is not specified by

Kawami. Haskal teaches using a “protective covering comprises a suitable hydrophobic material include poly siloxanes, polytetrafluorthylene (Teflon) and branched polyolefins” (column 3, line 58-61), to protect the organic electroluminescent material from oxidative or hydrolytic degradation. Polyolefin is a type of thermoplastic resin. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use thermoplastic (polyolefins) resin of Haskal, for the purpose of controlling the amount of oxidative or hydrolytic impurities allowed to pass through and absorbed by the drying substance.

Regarding to claim 6, Kawami shows all of the claimed limitations such as a drying substance, an “adhesive member” and a gas-permeable sheet member, however, the material that composes the sheet member is not disclosed. Haskal teaches using a protective layer comprises of polyolefin (column 3, line 61), in order to effectively protect the electro luminescent material from oxidative or hydrolytic degradation. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the protective layer comprises of polyolefin as the sheet member that covers the drying substance, to protect the drying substance and controls oxidative or hydrolytic gases to pass through to be absorbed by the drying substance.

8. Claims 7, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,882,761 to Kawami in view of U.S. Patent No. 5,444,331 to Matsuno. Regarding to claim 7, Kawami reveals all of the claimed limitations for instance the drying substance, and an “adhesive member,” however, the elasticity of the “adhesive

member” is not declared. Matsuno teaches an “adhesive comprised primarily of zirconia and sodium silicate can be used to attach the getter,” (column 6, line 26-28) and the material sodium silicate has modulus of elasticity of 2.0×10^4 psi, which converts to approximately 14×10^7 Pa and is in the range of from 1.0×10^3 Pa to 1.0×10^{10} Pa at 25°C. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the sodium silicate material as the “adhesive member” that is fixed to the drying substance and to the electroluminescent device.

Regarding to claim 8, Kawami shows all of the claimed limitations such as the drying substance with an “adhesive member” fixed to the drying agent. However, Kawami did not declare the elasticity of the material that composes the “adhesive member”. Matsuno teaches an “adhesive comprised primarily of zirconia and sodium silicate can be used to attach the getter,” (column 6, line 26-28) and the material sodium silicate has modulus of elasticity of 2.0×10^4 psi, which converts to approximately 14×10^7 Pa and is in the range of from 1.0×10^6 Pa or higher at 25°C. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the sodium silicate material as the “adhesive member” that is fixed to the drying substance and to the electroluminescent device.

Regarding to claim 9, it is old and well known to choose thin layers for the electroluminescent devices since these devices by their nature are thin. Further, applicant has not established that the thickness of 5mm or less is critical to the invention and hence, the proper thickness can be determined by routine experimentation by one having ordinary skill in the art.

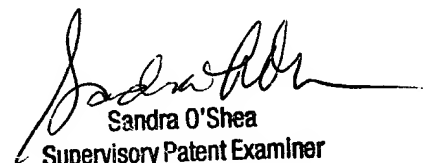
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalei Dong whose telephone number is (703)308-2870. The examiner can normally be reached on 8 A.M. to 5 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (703)305-4943. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-7722 for regular communications and (703)308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

August 19, 2002


Sandra O'Shea
Supervisory Patent Examiner
Technology Center 2800